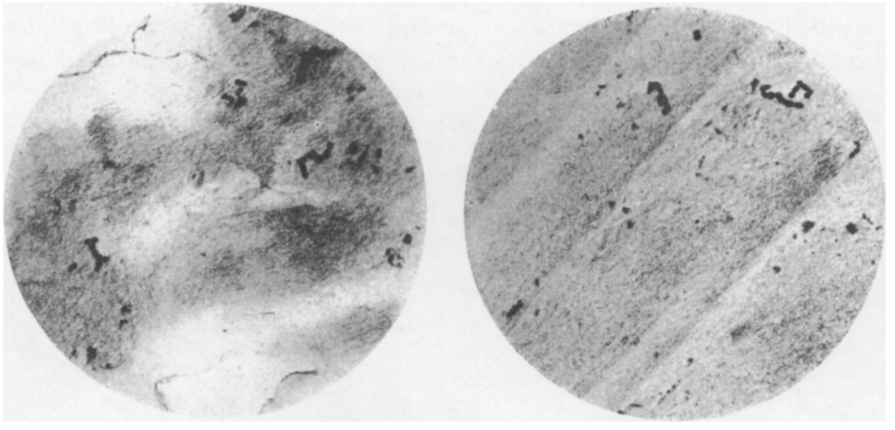
cocci.[3] For the purpose of comparison in this preliminary notice an illustration is here given of a group of recent forms as shown in the *Encyclopedia Britannica*[3] and of the form shown in the cells in the thin sections cut from the fossil alga of the Newland limestone.



Figs. 2 and 3. *Micrococcus* sp. undt. (× about 1100 diameters.) Average size of Micrococci 0.95 to 1.3 microns in diameter. (Slide D.) From locality 401b, Algonkian: Gallatin formation; north side of East Gallatin River, 5 miles (8 km.) east of Logan, Gallatin County, Montana.

[1] Walcott, Pre-Cambrian Algonkian Algal Flora, *Smithsonian Misc. Coll.*, **64**, No. 2 (1914).
[2] Idem, p. 116, pl. 23, fig. 1.
[3] *Encyclopaedia Britannica*, 11th ed., vol. 3, p. 160, fig. 5.

A CORRECTION

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In my paper on the earth considered as a heat engine, this volume, page 81, the linear expansion of rock forming minerals was inadvertently taken at 100 times its real value. A square area of superficial rock of relatively low diffusivity would really need to be several hundred degrees hotter than the surrounding areas to be shattered by the compressive stresses called into play by mere difference of temperature. Similarly a mean temperature difference of 40° between oceanic and continental columns overlying the level of isostatic compensation, would by itself account for a difference of level of only about 39 metres.

The error committed does not affect the general argument that the subcontinental shell acts as a heat engine, for it is known that several reversible processes such as elastic strain, expansion, liquefaction and volatilization are

active in this shell, so that the internal heat does not escape to the surface solely by conduction and must therefore do work. Nor is it impossible that after the final consolidation of the superficial rocks, at from 700° to say 1300°, temperature differences of several hundred degrees were set up on equipotential surfaces. It is a matter of certainty that jointing of the rocks is now universal in continental areas and that it has been prevalent from the Archean onwards That jointing impedes the flow of heat, thus exaggerating any primordial inferiority of diffusivity and tending to increase temperature differences, is equally certain. How primeval jointing was initiated is less clear than my mistake made it seem to me, and offers an interesting problem.

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